Journal of Biomedical Materials Research
Author Index—Volume 77A

Adachi, N. See Yanada, S., 773
Agathopoulos, S. See Rocha, J. H. G., 160
Aguilera, F. S. See Toledano, M., 128
Agung, M. See Yanada, S., 773
Aita, H. See Nakamura, H., 478
Albaladejo, A. See Toledano, M., 128
Allcock, H. R. See Greish, Y. E., 416; Sethuraman, S., 679
Al-Saffar, N. See Jell, G., 119
Ambrosio, L. See Catauro, M., 340
Ameer, G. A. See Kang, Y., 331
Anderson, J. See Ward, B., 380; Ward, R., 580
Andia, I. See Anitua, E., 285
Andrews, R. See Marrs, B., 269
Anissian, L. See Kang, Y., 331
Anitua, E.
—; Sanchez, M.; Nurden, A. T.; Zalduendo, M.; de la Fuente, M.; Orive, G.; Azofra, J.; Andia, I.: Autologous fibrin matrices: A potential source of biological mediators that modulate tendon cell activities, 285
Ao, Q. See Zhang, L., 277
—; Wang, A.; Cao, W.; Zhang, L.; Kong, L.; He, Q.; Gong, Y.; Zhang, X.: Manufacture of multimicrotubule chitosan nerve conduits with novel molds and characterization *in vitro*, 11
Araño, A. See Peraire, C., 370
Arias, J. L. See Peraire, C., 370
Arola, D.
—; Zheng, W.: Hydration and dynamic fatigue of dentin, 148
Azofra, J. See Anitua, E., 285

Babyn, P. See Cartwright, L., 390
Bachrach, G.
—; Friedman, M.; Gilinski, G.; Steinberg, D.: Soluble sustained release gene delivery system, 811
Baker, S. P. See Donnelly, E., 426
Banu, N.
—; Tsuchiya, T.; Sawada, R.: Effects of a biodegradable polymer synthesized with inorganic tin on the chondrogenesis of human articular chondrocytes, 84
Barbu, E. See Verestiuc, L., 726
Barranco, V. See Saldaña, L., 220
Baslé, M. F. See Mabilleau, G., 35
Beck, B. See Schwarz, F., 437
Becker, J. See Schwarz, F., 437
Benayahu, D. See Shur, I., 832
Bender, J. D. See Greish, Y. E., 416
Bengali, Z. See Jang, J.-H., 50
Bernal, D. See Peraire, C., 370
Bernier, S. M. See Koleganova, V. A., 572
Bierbaum, S.
—; Douglas, T.; Hanke, T.; Scharnweber, D.; Tippelt, S.; Monsees, T. K.; Funk, R. H. W.; Worch, H.: Collageneous matrix coatings on titanium implants modified with decorin and chondroitin sulfate: Characterization and influence on osteoblastic cells, 551
Bjursten, L. M. See Sahlin, H., 43
Boccaccini, A. R. See Chen, Q. Z., 445
Bolayir, G. See Develioğlu, H., 627
Boskey, A. L. See Donnelly, E., 426
Brauer, D. S.
—; Rüssel, C.; Li, W.; Habelitz, S.: Effect of degradation rates of resorbable phosphate invert glasses on *in vitro* osteoblast proliferation, 213
Breneman, K. D. See Hinds, M. T., 458
Brown, P. W. See Greish, Y. E., 416; Sethuraman, S., 679
Brozek, W. See Wutzl, A., 75
Burdick, J. A. See Chung, C., 518
Burgos, R. See García Páez, J. M., 839
Butz, F. See Nakamura, H., 478

Cao, W. See Ao, Q., 11
Cartwright, L.
—; Farhat, W. A.; Sherman, C.; Chen, J.; Babyn, P.; Yeger, H.; Cheng, H.-L. M.: Dynamic contrast-enhanced MRI to quantify VEGF-enhanced tissue-engineered bladder graft neovascularization: Pilot study, 390
—; Shou, Z.; Yeger, H.; Farhat, W. A.: Porcine bladder acellular matrix porosity: Impact of hyaluronic acid and lyophilization, 180
Castillo-Olivares, J. L. See García Páez, J. M., 839
Catauro, M.
—; Raucci, M. G.; DE Marco, D.; Ambrosio, L.: Release kinetics of ampicillin, characterization and bioactivity of TiO_2/PCL hybrid materials synthesized by sol–gel processing, 340
Chang, B.-S. See Lee, J. H., 362
Chang, K.-Y. See Thissen, H., 590
Chappard, D. See Mabilleau, G., 35
Chen, J. See Cartwright, L., 390
Chen, Q. Z.
—; Boccaccini, A. R.: Poly(D,L-lactic acid) coated 45S5 Bioglass®-based scaffolds: Processing and characterization, 445
Chen, S. See Lu, Y., 396
Chen, Z. See Luo, J., 823
Cheng, H.-L. M. See Cartwright, L., 390
Cheng, J.-Y. See Shau, M.-D., 736
Chin, W.-K. See Shau, M.-D., 736
Chiu, R.
—; Ma, T.; Smith, R. L.; Goodman, S. B.: Polymethylmethacrylate particles inhibit osteoblastic differentiation of bone marrow osteoprogenitor cells, 850
Chung, C.
—; Mesa, J.; Randolph, M. A.; Yaremchuk, M.; Burdick, J. A.: Influence of gel properties on neocartilage formation by auricular chondrocytes photoencapsulated in hyaluronic acid networks, 518
Chung, C.-P. See Seol, Y.-J., 599
Cincu, C. See Mabilleau, G., 35
Colby, C. B. See Liu, D. P., 763
Conconi, M. T. See Marzaro, M., 795
Contreras, R. See Sahlin, H., 43

Journal of Biomedical Materials Research
Author Index—Volume 77A

Adachi, N. See Yanada, S., 773
Agathopoulos, S. See Rocha, J. H. G., 160
Aguilera, F. S. See Toledano, M., 128
Agung, M. See Yanada, S., 773
Aita, H. See Nakamura, H., 478
Albaladejo, A. See Toledano, M., 128
Allcock, H. R. See Greish, Y. E., 416; Sethuraman, S., 679
Al-Saffar, N. See Jell, G., 119
Ambrosio, L. See Catauro, M., 340
Ameer, G. A. See Kang, Y., 331
Anderson, J. See Ward, B., 380; Ward, R., 580
Andia, I. See Anitua, E., 285
Andrews, R. See Marrs, B., 269
Anissian, L. See Kang, Y., 331
Anitua, E.
—; Sanchez, M.; Nurden, A. T.; Zalduendo, M.; de la Fuente, M.; Orive, G.; Azofra, J.; Andia, I.: Autologous fibrin matrices: A potential source of biological mediators that modulate tendon cell activities, 285
Ao, Q. See Zhang, L., 277
—; Wang, A.; Cao, W.; Zhang, L.; Kong, L.; He, Q.; Gong, Y.; Zhang, X.: Manufacture of multimicrotubule chitosan nerve conduits with novel molds and characterization *in vitro*, 11
Araño, A. See Peraire, C., 370
Arias, J. L. See Peraire, C., 370
Arola, D.
—; Zheng, W.: Hydration and dynamic fatigue of dentin, 148
Azofra, J. See Anitua, E., 285

Babyn, P. See Cartwright, L., 390
Bachrach, G.
—; Friedman, M.; Gilinski, G.; Steinberg, D.: Soluble sustained release gene delivery system, 811
Baker, S. P. See Donnelly, E., 426
Banu, N.
—; Tsuchiya, T.; Sawada, R.: Effects of a biodegradable polymer synthesized with inorganic tin on the chondrogenesis of human articular chondrocytes, 84
Barbu, E. See Verestiuc, L., 726
Barranco, V. See Saldaña, L., 220
Baslé, M. F. See Mabilleau, G., 35
Beck, B. See Schwarz, F., 437
Becker, J. See Schwarz, F., 437
Benayahu, D. See Shur, I., 832
Bender, J. D. See Greish, Y. E., 416
Bengali, Z. See Jang, J.-H., 50
Bernal, D. See Peraire, C., 370
Bernier, S. M. See Koleganova, V. A., 572
Bierbaum, S.
—; Douglas, T.; Hanke, T.; Scharnweber, D.; Tippelt, S.; Monsees, T. K.; Funk, R. H. W.; Worch, H.: Collageneous matrix coatings on titanium implants modified with decorin and chondroitin sulfate: Characterization and influence on osteoblastic cells, 551
Bjursten, L. M. See Sahlin, H., 43
Boccaccini, A. R. See Chen, Q. Z., 445
Bolayir, G. See Develioğlu, H., 627
Boskey, A. L. See Donnelly, E., 426
Brauer, D. S.
—; Rüssel, C.; Li, W.; Habelitz, S.: Effect of degradation rates of resorbable phosphate invert glasses on *in vitro* osteoblast proliferation, 213
Breneman, K. D. See Hinds, M. T., 458
Brown, P. W. See Greish, Y. E., 416; Sethuraman, S., 679
Brozek, W. See Wutzl, A., 75
Burdick, J. A. See Chung, C., 518
Burgos, R. See García Páez, J. M., 839
Butz, F. See Nakamura, H., 478

Cao, W. See Ao, Q., 11
Cartwright, L.
—; Farhat, W. A.; Sherman, C.; Chen, J.; Babyn, P.; Yeger, H.; Cheng, H.-L. M.: Dynamic contrast-enhanced MRI to quantify VEGF-enhanced tissue-engineered bladder graft neovascularization: Pilot study, 390
—; Shou, Z.; Yeger, H.; Farhat, W. A.: Porcine bladder acellular matrix porosity: Impact of hyaluronic acid and lyophilization, 180
Castillo-Olivares, J. L. See García Páez, J. M., 839
Catauro, M.
—; Raucci, M. G.; DE Marco, D.; Ambrosio, L.: Release kinetics of ampicillin, characterization and bioactivity of TiO_2/PCL hybrid materials synthesized by sol–gel processing, 340
Chang, B.-S. See Lee, J. H., 362
Chang, K.-Y. See Thissen, H., 590
Chappard, D. See Mabilleau, G., 35
Chen, J. See Cartwright, L., 390
Chen, Q. Z.
—; Boccaccini, A. R.: Poly(D,L-lactic acid) coated 45S5 Bioglass®-based scaffolds: Processing and characterization, 445
Chen, S. See Lu, Y., 396
Chen, Z. See Luo, J., 823
Cheng, H.-L. M. See Cartwright, L., 390
Cheng, J.-Y. See Shau, M.-D., 736
Chin, W.-K. See Shau, M.-D., 736
Chiu, R.
—; Ma, T.; Smith, R. L.; Goodman, S. B.: Polymethylmethacrylate particles inhibit osteoblastic differentiation of bone marrow osteoprogenitor cells, 850
Chung, C.
—; Mesa, J.; Randolph, M. A.; Yaremchuk, M.; Burdick, J. A.: Influence of gel properties on neocartilage formation by auricular chondrocytes photoencapsulated in hyaluronic acid networks, 518
Chung, C.-P. See Seol, Y.-J., 599
Cincu, C. See Mabilleau, G., 35
Colby, C. B. See Liu, D. P., 763
Conconi, M. T. See Marzaro, M., 795
Contreras, R. See Sahlin, H., 43

Cordon, A. See García Páez, J. M., 839
Courtman, D. W. See Hinds, M. T., 458
Cristino, S. See Lisignoli, G., 497
Currier, B. L. See Kempen, D. H. R., 103

Dagang, G.
—; Kewei, X.; Haoliang, S.; Yong, H.: Physicochemical properties of TTCP/DCPA system cement formed in physiological saline solution and its cytotoxicity, 313
de Groot, K. See Habibovic, P., 747
de la Fuente, M. See Anitua, E., 285
Dellinger, J. G.
—; Wojtowicz, A. M.; Jamison, R. D.: Effects of degradation and porosity on the load bearing properties of model hydroxyapatite bone scaffolds, 563
de Marco, D. See Catauro, M., 340
Develioğlu, H.
—; Saraydin, S. Ü.; Bolayir, G.; Dupoirieux, L.: Assessment of the effect of a biphasic ceramic on bone response in a rat calvarial defect model, 627
Dhert, W. J. A. See Kempen, D. H. R., 103
Dixon, S. J. See Koleganova, V. A., 572
Donnelly, E.
—; Baker, S. P.; Boskey, A. L.; van der Meulen, M. C. H.: Effects of surface roughness and maximum load on the mechanical properties of cancellous bone measured by nanoindentation, 426
Douglas, T. See Bierbaum, S., 551
Drummond, J. L. See Zhou, M., 1
Du, F. G. See Lu, X. L., 653
Dupoirieux, L. See Develioğlu, H., 627

Ebenstein, D. M. See Kazakia, G. J., 688
Ebert, M. See Ward, B., 380
Edirisinghe, P. D. See Zhou, M., 1
Ehashi, T.
—; Ohshima, N.; Miyoshi, H.: Three-dimensional culture of porcine fetal liver cells for a bioartificial liver, 90
Einav, S. See Shur, I., 832
El-Amin, S. See Sethuraman, S., 679
Elli, S. See Raffaini, G., 618
Escudero, M. L. See Saldaña, L., 220
Évora, C. See Soriano, I., 632

Facchini, A. See Lisignoli, G., 497
Fan, H.
—; Hu, Y.; Qin, L.; Li, X.; Wu, H.; Lv, R.: Porous gelatin–chondroitin–hyaluronate tri-copolymer scaffold containing microspheres loaded with TGF-β1 induces differentiation of mesenchymal stem cells *in vivo* for enhancing cartilage repair, 785
Farhat, W. A. See Cartwright, L., 390; Cartwright, L. M., 180
Farrar, R. See Sethuraman, S., 679
Ferreira, J. M. F. See Rocha, J. H. G., 160
Fornasiero, F. See Weinmüller, C., 230
Frangos, J. A. See Sahlin, H., 43
Friedman, M. See Bachrach, G., 811
Fritz, E. A.
—; Glant, T. T.; Vermes, C.; Jacobs, J. J.; Roebuck, K. A.: Chemokine gene activation in human bone marrow-derived osteoblasts following exposure to particulate wear debris, 192
Fujimoto, S. See Nakagawa, M., 112
Funk, R. H. W. See Bierbaum, S., 551

Ganazzoli, F. See Raffaini, G., 618
García, A. J. See Stabenfeldt, S. E., 718
García-Alonso, M. C. See Saldaña, L., 220
García Páez, J. M.
—; Sanmartín, A. C.; Herrero, E. J.; Millán, I.; Cordon, A.; Rocha, A.; Maestro, M.; Burgos, R.; Téllez, G.; Castillo-Olivares, J. L.: Durability of a cardiac valve leaflet made of calf pericardium: Fatigue and energy consumption, 839
Gaskill, D. F. See Sahlin, H., 43
Ge, X. C. See Lu, X. L., 653
Ge, Z.
—; Yang, F.; Goh, J. C. H.; Ramakrishna, S.; Lee, E. H.: Biomaterials and scaffolds for ligament tissue engineering, 639
George, S. See Kishen, A., 406
Gilinski, G. See Bachrach, G., 811
Giuliani, S. See Marzaro, M., 795
Glant, T. T. See Fritz, E. A., 192
Glattauer, V. See Thissen, H., 590
Gogolewski, S. See Harris, L. G., 304
—; Gorna, K.; Turner, A. S.: Regeneration of bicortical defects in the iliac crest of estrogen-deficient sheep, using new biodegradable polyurethane bone graft substitutes, 802

Goh, J. C. H. See Ge, Z., 639
Gong, Y. See Ao, Q., 11; Zhang, L., 277
González-Carrasco, J. L. See Saldaña, L., 608
Goodman, S. B. See Chiu, R., 850; Ramachandran, R., 512
Gorna, K. See Gogolewski, S., 802; Harris, L. G., 304
Green, K. L. See Verestiuc, L., 726
Gregory, K. W. See Hinds, M. T., 458
Greil, P. See Tsuchiya, H., 534
Greish, Y. E. See Sethuraman, S., 679
—; Bender, J. D.; Lakshmi, S.; Brown, P. W.; Allcock, H. R.; Laurencin, C. T.: Formation of hydroxyapatite–polyphosphazene polymer composites at physiologic temperature, 416
Gunduz, M. See Rodriguez, A. P., 707; Tsujigiwa, H., 507
Guo, Z.-Y. See Wang, W., 28
Gupta, V. See Nakamura, H., 478

Haapa-aho, V. See Meretoja, V. V., 261
Habelitz, S. See Brauer, D. S., 213
Habibovic, P.
—; Sees, T. M.; van den Doel, M. A.; van Blitterswijk, C. A.; de Groot, K.: Osteoinduction by biomaterials—Physicochemical and structural influences, 747
Hall, H. See Reidy, M., 542
Halloran, B. P. See Kazakia, G. J., 688
Hamada, Y. See Nakagawa, M., 112
Han, J.-X. See Liu, Y., 324
Han, P. P. See Tsujigiwa, H., 507
Han, S.-B. See Seol, Y.-J., 599
Han, X.-J. See Huang, Z.-M., 169
Hanke, T. See Bierbaum, S., 551
Hanley, L. See Zhou, M., 1
Haoliang, S. See Dagang, G., 313
Harris, L. G.
—; Gorna, K.; Gogolewski, S.; Richards, R. G.: Biodegradable polyurethane cytocompatibility to fibroblasts and staphylococci, 304
He, C.-L. See Huang, Z.-M., 169
He, Q. See Ao, Q., 11
He, Y. See Wang, H., 672
Helminen, A. O. See Meretoja, V. V., 261
Herrero, E. J. See García Páez, J. M., 839
Herten, M. See Schwarz, F., 437
Hinds, M. T.
—; Rowe, R. C.; Ren, Z.; Teach, J.; Wu, P.-C.; Kirkpatrick, S. J.; Breneman, K. D.; Gregory, K. W.; Courtman, D. W.: Development of

a reinforced porcine elastin composite vascular scaffold, 458
Hofbauer, G. See Wutzl, A., 75
Holmbom, J. See Wilson, T., 67
Hong, K. S. See Lee, J. H., 362
Honoré, T. See Mabilleau, G., 35
Houchin, T. L. See Jang, J.-H., 50
Hsu, S. D. See Omata, Y., 470
Hu, Y. See Fan, H., 785
Huang, Z.-M.
—; He, C.-L.; Yang, A.; Zhang, Y.; Han, X.-J.; Yin, J.; Wu, Q.: Encapsulating drugs in biodegradable ultrafine fibers through co-axial electrospinning, 169
Hubbell, J. A. See Reidy, M., 542

Inoue, M. See Tsujigiwa, H., 507
Ishihara, K. See Ueda, H., 19
Itoh, S.
—; Susuki, C.; Tsuji, T.: Platelet activation through interaction with hemodialysis membranes induces neutrophils to produce reactive oxygen species, 294
Iwata, H. See Moriyasu, K., 136

Jacobs, J. J. See Fritz, E. A., 192
Jamison, R. D. See Dellinger, J. G., 563
Jang, J.-H.
—; Bengali, Z.; Houchin, T. L.; Shea, L. D.: Surface adsorption of DNA to tissue engineering scaffolds for efficient gene delivery, 50
Jansen, J. A. See van den Beucken, J. J. J. P., 202; Yonggang, Y., 815
Jansen, K.
—; Meek, M. F.; van der Werff, J. F. A.; van Wachem, P. B.; van Luyn, M. J. A.: Long-term regeneration of the rat sciatic nerve through a biodegradable poly(DL-lactide-Î-caprolactone) nerve guide: Tissue reactions with focus on collagen III/IV reformation, 436
Jell, G.
—; Kerjaschki, D.; Revell, P.; Al-Saffar, N.: Lymphangiogenesis in the bone–implant interface of orthopedic implants: importance and consequence, 119
Jiang, S. See Wang, H., 672
Jorgensen, C. See Lisignoli, G., 497

Kang, S.-W.
—; Son, S.-M.; Lee, J.-S.; Lee, E.-S.; Lee, K.-Y.; Park, S.-G.; Park, J.-H.; Kim, B.-S.: Regeneration of whole meniscus using meniscal cells and polymer scaffolds in a rabbit total meniscectomy model, 659
Kang, Y.
—; Yang, J.; Khan, S.; Anissian, L.; Ameer, G. A.: A new biodegradable polyester elastomer for cartilage tissue engineering, 331
Kannan, S. See Rocha, J. H. G., 160
Katti, D. See Verma, D., 59
Katti, K. See Verma, D., 59
Kawamata, S. See Yanada, S., 773
Kazakia, G. J.
—; Nauman, E. A.; Ebenstein, D. M.; Halloran, B. P.; Keaveny, T. M.: Effects of *in vitro* bone formation on the mechanical properties of a trabeculated hydroxyapatite bone substitute, 688
Keaveny, T. M. See Kazakia, G. J., 688
Kellerth, J.-O. See Novikova, L. N., 242
Kempen, D. H. R.
—; Lu, L.; Kim, C.; Zhu, X.; Dhert, W. J. A.; Currier, B. L.; Yaszemski, M. J.: Controlled drug release from a novel injectable biodegradable microsphere/scaffold composite based on poly(propylene fumarate), 103
Kerjaschki, D. See Jell, G., 119
Kewei, X. See Dagang, G., 313
Khan, S. See Kang, Y., 331
Khorasani, M. T.
—; Shorgashti, S.: Fabrication of microporous polyurethane by spray phase inversion method as small diameter vascular grafts material, 253
Kibayashi, H. See Nakagawa, M., 112
Kim, B.-S. See Kang, S.-W., 659
Kim, C. See Kempen, D. H. R., 103
Kim, H. See Lee, J. H., 362
Kim, K.-H. See Seol, Y.-J., 599
Kim, T.-I. See Seol, Y.-J., 599
Kirkpatrick, S. J. See Hinds, M. T., 458
Kishen, A.
—; George, S.; Kumar, R.: *Enterococcus faecalis*-mediated biomineralized biofilm formation on root canal dentine *in vitro*, 406
Kitamura, M. See Saito, A., 700
Kohane, D. S.
—; Tse, J. Y.; Yeo, Y.; Padera, R.; Shubina, M.; Langer, R.: Biodegradable polymeric microspheres and nanospheres for drug delivery in the peritoneum, 351
Koleganova, V. A.
—; Bernier, S. M.; Dixon, S. J.; Rizkalla, A. S.: Bioactive glass/polymer composite materials with mechanical properties matching those of cortical bone, 572
Kong, L. See Ao, Q., 11; Zhang, L., 277
Konno, T. See Ueda, H., 19
Korventausta, J. J. See Meretoja, V. V., 261
Ku, Y. See Seol, Y.-J., 599
Kumar, R. See Kishen, A., 406
Kunze, J. See Tsuchiya, H., 534

Lakshmi, S. See Greish, Y. E., 416
Langel, C. See Weinmüller, C., 230
Langer, R. See Kohane, D. S., 351
LaPlaca, M. C. See Stabenfeldt, S. E., 718
Laurencin, C. T. See Greish, Y. E., 416; Sethuraman, S., 679
Lee, C.-K. See Lee, J. H., 362
Lee, E. H. See Ge, Z., 639
Lee, E.-S. See Kang, S.-W., 659
Lee, J. H.
—; Lee, C.-K.; Chang, B.-S.; Ryu, H.-S.; Seo, J.-H.; Hong, K. S.; Kim, H.: *In vivo* study of novel biodegradable and osteoconductive CaO-SiO_2-B_2O_3 glass-ceramics, 362
Lee, J.-S. See Kang, S.-W., 659
Lee, J.-Y. See Seol, Y.-J., 599
Lee, K.-Y. See Kang, S.-W., 659
Lee, S.-C. See Seol, Y.-J., 599
Lee, Y. J. See Tsujigiwa, H., 507
Lee, Y.-M. See Seol, Y.-J., 599
Legeay, G. See Mabilleau, G., 35
LeGeros, R. Z. See Tsujigiwa, H., 507
Lemos, A. F. See Rocha, J. H. G., 160
León, B. See Peraire, C., 370
Lernbass, I. See Wutzl, A., 75
Lewis, J. B. See Omata, Y., 470
Li, W. See Brauer, D. S., 213
Li, X. See Fan, H., 785
Li, Z.-X. See Wang, W., 28
Lim, C. T. See Tan, E. P. S., 526
Lisignoli, G.
—; Cristino, S.; Piacentini, A.; Zini, N.; Noël, D.; Jorgensen, C.; Facchini, A.: Chondrogenic differentiation of murine and human mesenchymal stromal cells

in a hyaluronic acid scaffold: Differences in gene expression and cell morphology, 497
Liu, D. P.
—; Majewski, P.; O'Neill, B. K.; Ngothai, Y.; Colby, C. B.: The optimal SAM surface functional group for producing a biomaterial HA coating on Ti, 763
Liu, Y.
—; Han, J.-X.; Xiao, S.-Q.; Wang, S.-L.; Wang, M.: Study of recombinant human osteogenic protein-1 expressed in prokaryocyte on the repair of extracted socket in rabbits, 324
Lockwood, P. E. See Omata, Y., 470
Lu, G. See Zhang, L., 277
Lu, L. See Kempen, D. H. R., 103
Lu, X. L.
—; Du, F. G.; Ge, X. C.; Xiao, M.; Meng, Y. Z.: Biodegradability and thermal stability of poly(propylene carbonate)/starch composites, 653
Lu, Y.
—; Mapili, G.; Suhali, G.; Chen, S.; Roy, K.: A digital micro-mirror device-based system for the microfabrication of complex, spatially patterned tissue engineering scaffolds, 396
Luo, J.
—; Chen, Z.; Sun, Y.: Controlling biofilm formation with an *N*-halamine-based polymeric additive, 823
Lv, R. See Fan, H., 785

Ma, T. See Chiu, R., 850
Mabilleau, G.
—; Stancu, I. C.; Honoré, T.; Legeay, G.; Cincu, C.; Baslé, M. F.; Chappard, D.: Effects of the length of crosslink chain on poly(2-hydroxyethyl methacrylate) (pHEMA) swelling and biomechanical properties, 35
Macak, J. M. See Tsuchiya, H., 534
Maestro, M. See García Páez, J. M., 839
Majewski, P. See Liu, D. P., 763
Mapili, G. See Lu, Y., 396
Marrs, B.
—; Andrews, R.; Rantell, T.; Pienkowski, D.: Augmentation of acrylic bone cement with multiwall carbon nanotubes, 269
Martín, A. Y. See Soriano, I., 632
Marzaro, M.
—; Vigolo, S.; Oselladore, B.; Conconi, M. T.; Ribatti, D.; Giuliani, S.; Nico, B.; Perrino, G.; Nussdorfer, G. G.; Parnigotto, P. P.: *In vitro* and *in vivo* proposal of an artificial esophagus, 795
Masuda, S. See Saito, A., 700
McVenes, R. See Ward, B., 380; Ward, R., 580
Meek, M. F. See Jansen, K., 436
Meng, Y. Z. See Lu, X. L., 653
Meretoja, V. V.
—; Helminen, A. O.; Korventausta, J. J.; Haapa-aho, V.; Seppälä, J. V.; Närhi, T. O.: Crosslinked poly(Î-caprolactone/D,L-lactide)/bioactive glass composite scaffolds for bone tissue engineering, 261
Mesa, J. See Chung, C., 518
Messer, R. L. W. See Omata, Y., 470
Millán, I. See García Páez, J. M., 839
Missana, L. See Rodriguez, A. P., 707
Miyoshi, H. See Ehashi, T., 90
Monsees, T. K. See Bierbaum, S., 551
Moriyasu, K.
—; Yamazoe, H.; Iwata, H.: Induction dopamine releasing cells from mouse embryonic stem cells and their long-term culture, 136
Mosahebi, A. See Novikova, L. N., 242
Müller, F. See Tsuchiya, H., 534
Müller, L. See Tsuchiya, H., 534
Munuera, L. See Saldaña, L., 220; Saldaña, L., 608

Nagai, N. See Rodriguez, A. P., 707; Tsujigiwa, H., 507
Nagatsuka, H. See Rodriguez, A. P., 707; Tsujigiwa, H., 507
Nair, L. S. See Sethuraman, S., 679
Nakagawa, M.
—; Teraoka, F.; Fujimoto, S.; Hamada, Y.; Kibayashi, H.; Takahashi, J.: Improvement of cell adhesion on poly(L-lactide) by atmospheric plasma treatment, 112
Nakamura, H.
—; Shim, J.; Butz, F.; Aita, H.; Gupta, V.; Ogawa, T.: Glycosaminoglycan degradation reduces mineralized tissue–titanium interfacial strength, 478
Närhi, T. O. See Meretoja, V. V., 261
Nastasescu, O. See Verestiuc, L., 726
Nauman, E. A. See Kazakia, G. J., 688
Ngothai, Y. See Liu, D. P., 763
Nguyen, M.-T. N. See Sethuraman, S., 679
Nico, B. See Marzaro, M., 795
Nobuto, H. See Yanada, S., 773
Noda, M. See Omata, Y., 470
Noël, D. See Lisignoli, G., 497
Nolte, R. J. M. See van den Beucken, J. J. J. P., 202
Novikov, L. N. See Novikova, L. N., 242
Novikova, L. N.
—; Mosahebi, A.; Wiberg, M.; Terenghi, G.; Kellerth, J.-O.; Novikov, L. N.: Alginate hydrogel and matrigel as potential cell carriers for neurotransplantation, 242
Nurden, A. T. See Anitua, E., 285
Nussdorfer, G. G. See Marzaro, M., 795

Ochi, M. See Yanada, S., 773
Ogata, S.-I. See Saito, A., 700
Ogawa, T. See Nakamura, H., 478
Ohshima, N. See Ehashi, T., 90
Ohtsuki, C. See Saito, A., 700
Omata, Y.
—; Lewis, J. B.; Rotenberg, S.; Lockwood, P. E.; Messer, R. L. W.; Noda, M.; Hsu, S. D.; Sano, H.; Wataha, J. C.: Intra- and extracellular reactive oxygen species generated by blue light, 470
O'Neill, B. K. See Liu, D. P., 763
Orive, G. See Anitua, E., 285
Oselladore, B. See Marzaro, M., 795
Osorio, E. See Toledano, M., 128
Osorio, R. See Toledano, M., 128

Padera, R. See Kohane, D. S., 351
Papanicolau, P. See Schwarz, F., 437
Parikka, V. See Wilson, T., 67
Park, J.-H. See Kang, S.-W., 659
Park, S.-G. See Kang, S.-W., 659
Park, Y.-J. See Seol, Y.-J., 599
Parnigotto, P. P. See Marzaro, M., 795
Penttinen, R. See Wilson, T., 67
Peraire, C.
—; Arias, J. L.; Bernal, D.; Pou, J.; León, B.; Arañó, A.; Roth, W.: Biological stability and osteoconductivity in rabbit tibia of pulsed laser deposited hydroxylapatite coatings, 370
Perrino, G. See Marzaro, M., 795
Peterlik, M. See Wutzl, A., 75
Piacentini, A. See Lisignoli, G., 497
Pienkowski, D. See Marrs, B., 269
Pietschmann, P. See Wutzl, A., 75
Pou, J. See Peraire, C., 370
Pound, B. G.
—; Susceptibility of nitinol to localized corrosion, 185
Prausnitz, J. M. See Weinmüller, C., 230

Qin, L. See Fan, H., 785

Radke, C. J. See Weinmüller, C., 230
Raffaini, G.
—; Elli, S.; Ganazzoli, F.: Computer simulation of bulk mechanical properties and surface hydration of biomaterials, 618
Ramachandran, R.
—; Goodman, S. B.; Smith, R. L.: The effects of titanium and polymethylmethacrylate particles on osteoblast phenotypic stability, 512
Ramakrishna, S. See Ge, Z., 639
Ramshaw, J. A. M. See Thissen, H., 590
Randolph, M. A. See Chung, C., 518
Rantell, T. See Marrs, B., 269
Ratner, B. D. See Wang, H., 672
Raucci, M. G. See Catauro, M., 340
Rauner, M. See Wutzl, A., 75
Reidy, M.
—; Zihlmann, P.; Hubbell, J. A.; Hall, H.: Activation of cell-survival transcription factor NFκB in L1Ig6-stimulated endothelial cells, 542
Ren, Z. See Hinds, M. T., 458
Revell, P. See Jell, G., 119
Rhyu, I.-C. See Seol, Y.-J., 599
Ribatti, D. See Marzaro, M., 795
Richards, R. G. See Harris, L. G., 304
Rivera, R. See Rodriguez, A. P., 707
Rizkalla, A. S. See Koleganova, V. A., 572
Rocha, A. See García Páez, J. M., 839
Rocha, J. H. G.
—; Lemos, A. F.; Agathopoulos, S.; Kannan, S.; Valério, P.; Ferreira, J. M. F.: Hydrothermal growth of hydroxyapatite scaffolds from aragonitic cuttlefish bones, 160
Rodriguez, A. P.
—; Missana, L.; Nagatsuka, H.; Gunduz, M.; Tsujigiwa, H.; Rivera, R.; Nagai, N.: Efficacy of atelocollagen honeycomb scaffold in bone formation using KUSA/A1 cells, 707
Rodríguez, M. See Saldaña, L., 608
Roebuck, K. A. See Fritz, E. A., 192
Rotenberg, S. See Omata, Y., 470
Roth, W. See Peraire, C., 370
Rothamel, D. See Schwarz, F., 437
Rowe, R. C. See Hinds, M. T., 458
Roy, K. See Lu, Y., 396
Rüssel, C. See Brauer, D. S., 213
Ryu, H.-S. See Lee, J. H., 362

Sahlin, H.
—; Contreras, R.; Gaskill, D. F.; Bjursten, L. M.; Frangos, J. A.: Anti-inflammatory properties of micropatterned titanium coatings, 43
Saito, A. See Ueda, H., 19
—; Suzuki, Y.; Kitamura, M.; Ogata, S.-I.; Yoshihara, Y.; Masuda, S.; Ohtsuki, C.; Tanihara, M.: Repair of 20-mm long rabbit radial bone defects using BMP-derived peptide combined with an α-tricalcium phosphate scaffold, 700
Saldaña, L.
—; Barranco, V.; García-Alonso, M. C.; Vallés, G.; Escudero, M. L.; Munuera, L.; Vilaboa, N.: Concentration-dependent effects of titanium and aluminium ions released from thermally oxidized Ti6A14V alloy on human osteoblasts, 220
—; González-Carrasco, J. L.; Rodríguez, M.; Munuera, L.; Vilaboa, N.: Osteoblast response to plasma-spray porous Ti6A14V coating on substrates of identical alloy, 608
Sánchez, E. See Soriano, I., 632
Sanchez, M. See Anitua, E., 285
Sanmartín, A. C. See García Páez, J. M., 839
Sano, H. See Omata, Y., 470
Saraydin, S. Ü. See Develioğlu, H., 627
Sarvaiya, I. See Verestiuc, L., 726
Sawada, R. See Banu, N., 84
Scharnweber, D. See Bierbaum, S., 551
Schmuki, P. See Tsuchiya, H., 534
Schopper, C. See Wutzl, A., 75
Schwarz, F.
—; Papanicolau, P.; Rothamel, D.; Beck, B.; Herten, M.; Becker, J.: Influence of plaque biofilm removal on reestablishment of the biocompatibility of contaminated titanium surfaces, 437
Sees, T. M. See Habibovic, P., 747
Seo, J.-H. See Lee, J. H., 362
Seol, Y.-J.
—; Park, Y.-J.; Lee, S.-C.; Kim, K.-H.; Lee, J.-Y.; Kim, T.-I.; Lee, Y.-M.; Ku, Y.; Rhyu, I.-C.; Han, S.-B.; Chung, C.-P.: Enhanced osteogenic promotion around dental implants with synthetic binding motif mimicking bone morphogenetic protein (BMP)-2, 599
Seppälä, J. V. See Meretoja, V. V., 261
Sethuraman, S.
—; Nair, L. S.; El-Amin, S.; Farrar, R.; Nguyen, M.-T. N.; Singh, A.; Allcock, H. R.; Greish, Y. E.; Brown, P. W.; Laurencin, C. T.: *In vivo* biodegradability and biocompatibility evaluation of novel alanine ester based polypohosphazenes in a rat model, 679
Shau, M.-D.
—; Tseng, S.-J.; Yang, T.-F.; Cheng, J.-Y.; Chin, W.-K.: Effect of molecular weight on the transfection efficiency of novel polyurethane as a biodegradable gene vector, 736
Shea, L. D. See Jang, J.-H., 50
Sherman, C. See Cartwright, L., 390
Shim, J. See Nakamura, H., 478
Shorgashti, S. See Khorasani, M. T., 253
Shou, Z. See Cartwright, L. M., 180
Shubina, M. See Kohane, D. S., 351
Shur, I.
—; Zilberman, M.; Einav, S.; Benayahu, D.: Molecular and cellular characterization of mesenchymal progenitors for skeletal biomedical devices, 832
Simon, C. G., Jr. See Weir, M. D., 487
Singh, A. See Sethuraman, S., 679
Smith, R. L. See Chiu, R., 850; Ramachandran, R., 512
Sommerdijk, N. A. J. M. See van den Beucken, J. J. J. P., 202
Son, S.-M. See Kang, S.-W., 659
Soriano, I.
—; Martín, A. Y.; Évora, C.; Sánchez, E.: Biodegradable implantable fluconazole delivery rods designed for the treatment of fungal osteomyelitis: Influence of gamma sterilization, 632
Stabenfeldt, S. E.
—; García, A. J.; LaPlaca, M. C.: Thermoreversible laminin-functionalized hydrogel for neural tissue engineering, 718
Stancu, I. C. See Mabilleau, G., 35
Steinberg, D. See Bachrach, G., 811
Stokes, K. See Ward, B., 380; Ward, R., 580
Suhali, G. See Lu, Y., 396
Sun, Y. See Luo, J., 823
Susuki, C. See Itoh, S., 294
Suzuki, Y. See Saito, A., 700

Takahashi, J. See Nakagawa, M., 112
Takai, M. See Ueda, H., 19

Tan, E. P. S.
—; Lim, C. T.: Characterization of bulk properties of nanofibrous scaffolds from nanomechanical properties of single nanofibers, 526
Tanihara, M. See Saito, A., 700
Teach, J. See Hinds, M. T., 458
Tebb, T. A. See Thissen, H., 590
Téllez, G. See García Páez, J. M., 839
Teraoka, F. See Nakagawa, M., 112
Terenghi, G. See Novikova, L. N., 242
Thissen, H.
—; Chang, K.-Y.; Tebb, T. A.; Tsai, W.-B.; Glattauer, V.; Ramshaw, J. A. M.; Werkmeister, J. A.: Synthetic biodegradable microparticles for articular cartilage tissue engineering, 590
Tippelt, S. See Bierbaum, S., 551
Toledano, M.
—; Osorio, R.; Albaladejo, A.; Aguilera, F. S.; Osorio, E.: Differential effect of *in vitro* degradation on resin–dentin bonds produced by self-etch *versus* total-etch adhesives, 128
Tsai, W.-B. See Thissen, H., 590
Tse, J. Y. See Kohane, D. S., 351
Tseng, S.-J. See Shau, M.-D., 736
Tsibouklis, J. See Verestiuc, L., 726
Tsuchiya, H.
—; Macak, J. M.; Müller, L.; Kunze, J.; Müller, F.; Greil, P.; Virtanen, S.; Schmuki, P.: Hydroxyapatite growth on anodic TiO_2 nanotubes, 534
Tsuchiya, T. See Banu, N., 84
Tsuji, T. See Itoh, S., 294
Tsujigiwa, H. See Rodriguez, A. P., 707
—; Nagatsuka, H.; Lee, Y. J.; Han, P. P.; Gunduz, M.; LeGeros, R. Z.; Inoue, M.; Yamada, M.; Nagai, N.: Immobilized rhBMP-2/succinylated type I atelocollagen gene expression of intracellular signaling molecules on ST2 cells, 507
Turner, A. S. See Gogolewski, S., 802

Ueda, H.
—; Watanabe, J.; Konno, T.; Takai, M.; Saito, A.; Ishihara, K.: Asymmetrically functional surface properties on biocompatible phospholipid polymer membrane for bioartificial kidney, 19

Valério, P. See Rocha, J. H. G., 160
Vallés, G. See Saldaña, L., 220
van Blitterswijk, C. A. See Habibovic, P., 747
van den Beucken, J. J. J. P.
—; Walboomers, X. F.; Vos, M. R. J.; Sommerdijk, N. A. J. M.; Nolte, R. J. M.; Jansen, J. A.: Cyto- and histocompatibility of multilayered DNA-coatings on titanium, 202
van den Doel, M. A. See Habibovic, P., 747
van der Meulen, M. C. H. See Donnelly, E., 426
van der Werff, J. F. A. See Jansen, K., 436
van Luyn, M. J. A. See Jansen, K., 436
van Wachem, P. B. See Jansen, K., 436
Verestiuc, L.
—; Nastasescu, O.; Barbu, E.; Sarvaiya, I.; Green, K. L.; Tsibouklis, J.: Functionalized chitosan/NIPAM (HEMA) hybrid polymer networks as inserts for ocular drug delivery: Synthesis, *in vitro* assessment, and *in vivo* evaluation, 726
Verma, D.
—; Katti, K.; Katti, D.: Experimental investigation of interfaces in hydroxyapatite/polyacrylic acid/polycaprolactone composites using photoacoustic FTIR spectroscopy, 59
Vermes, C. See Fritz, E. A., 192
Vigolo, S. See Marzaro, M., 795
Vilaboa, N. See Saldaña, L., 220; Saldaña, L., 608
Virtanen, S. See Tsuchiya, H., 534
Vos, M. R. J. See van den Beucken, J. J. J. P., 202

Walboomers, X. F. See van den Beucken, J. J. J. P., 202
Wang, A. See Ao, Q., 11; Zhang, L., 277
Wang, H.
—; He, Y.; Ratner, B. D.; Jiang, S.: Modulating cell adhesion and spreading by control of $FnIII_{7-10}$ orientation on charged self-assembled monolayers (SAMs) of alkanethiolates, 672
Wang, H.-B. See Wang, W., 28
Wang, M. See Liu, Y., 324
Wang, S.-L. See Liu, Y., 324
Wang, W.
—; Wang, H.-B.; Li, Z.-X.; Guo, Z.-Y.: Silicon inhibition effects on the polymerase chain reaction: A real-time detection approach, 28
Ward, B.
—; Anderson, J.; Ebert, M.; McVenes, R.; Stokes, K.: *In vivo* biostability of polysiloxane polyether polyurethanes: Resistance to metal ion oxidation, 380
Ward, R.
—; Anderson, J.; McVenes, R.; Stokes, K.: *In vivo* biostability of polysiloxane polyether polyurethanes: Resistance to biologic oxidation and stress cracking, 580
Wataha, J. C. See Omata, Y., 470
Watanabe, J. See Ueda, H., 19
Watzinger, F. See Wutzl, A., 75
Weinmüller, C.
—; Langel, C.; Fornasiero, F.; Radke, C. J.; Prausnitz, J. M.: Sorption kinetics and equilibrium uptake for water vapor in soft-contact-lens hydrogels, 230
Weir, M. D.
—; Xu, H. H. K.; Simon, C. G., Jr.: Strong calcium phosphate cement-chitosan-mesh construct containing cell-encapsulating hydrogel beads for bone tissue engineering, 487
Werkmeister, J. A. See Thissen, H., 590
Wiberg, M. See Novikova, L. N., 242
Wilson, T.
—; Parikka, V.; Holmbom, J.; Ylänen, H.; Penttinen, R.: Intact surface of bioactive glass S53P4 is resistant to osteoclastic activity, 67
Wojtowicz, A. M. See Dellinger, J. G., 563
Wolke, J. G. C. See Yonggang, Y., 815
Worch, H. See Bierbaum, S., 551
Wu, C. See Zhou, M., 1
Wu, H. See Fan, H., 785
Wu, P.-C. See Hinds, M. T., 458
Wu, Q. See Huang, Z.-M., 169
Wutzl, A.
—; Brozek, W.; Lernbass, I.; Rauner, M.; Hofbauer, G.; Schopper, C.; Watzinger, F.; Peterlik, M.; Pietschmann, P.: Bone morphogenetic proteins 5 and 6 stimulate osteoclast generation, 75

Xiao, M. See Lu, X. L., 653
Xiao, S.-Q. See Liu, Y., 324
Xu, H. H. K. See Weir, M. D., 487

Yamada, M. See Tsujigiwa, H., 507
Yamazoe, H. See Moriyasu, K., 136
Yan, X.-J.
—; Yang, D.-Z.: Corrosion resistance of a laser spot-welded joint of NiTi wire in simulated human body fluids, 97
Yanada, S.
—; Ochi, M.; Adachi, N.; Nobuto, H.; Agung, M.; Kawamata, S.: Effects of CD44 antibody–or RGDS peptide–immobilized magnetic beads on cell proliferation and chondrogenesis of mesenchymal stem cells, 773
Yang, A. See Huang, Z.-M., 169
Yang, D.-Z. See Yan, X.-J., 97
Yang, F. See Ge, Z., 639
Yang, J. See Kang, Y., 331
Yang, T.-F. See Shau, M.-D., 736
Yaremchuk, M. See Chung, C., 518
Yaszemski, M. J. See Kempen, D. H. R., 103
Yeger, H. See Cartwright, L., 390; Cartwright, L. M., 180
Yeo, Y. See Kohane, D. S., 351
Yin, J. See Huang, Z.-M., 169
Ylänen, H. See Wilson, T., 67
Yong, H. See Dagang, G., 313
Yonggang, Y.
—; Wolke, J. G. C.; Yubao, L.; Jansen, J. A.: Subcutaneous evaluation of RF magnetron-sputtered calcium pyrophosphate and hydroxylapatite-coated Ti implants, 815
Yoshihara, Y. See Saito, A., 700
Yubao, L. See Yonggang, Y., 815

Zalduendo, M. See Anitua, E., 285
Zhang, L. See Ao, Q., 11
—; Ao, Q.; Wang, A.; Lu, G.; Kong, L.; Gong, Y.; Zhao, N.; Zhang, X.: A sandwich tubular scaffold derived from chitosan for blood vessel tissue engineering, 277
Zhang, X. See Ao, Q., 11; Zhang, L., 277
Zhang, Y. See Huang, Z.-M., 169
Zhao, N. See Zhang, L., 277
Zheng, W. See Arola, D., 148
Zhou, M.
—; Wu, C.; Edirisinghe, P. D.; Drummond, J. L.; Hanley, L.: Organic overlayer model of a dental composite analyzed by laser desorption postionization mass spectrometry and photoemission, 1
Zhu, X. See Kempen, D. H. R., 103
Zihlmann, P. See Reidy, M., 542
Zilberman, M. See Shur, I., 832
Zini, N. See Lisignoli, G., 497

Journal of Biomedical Materials Research
Subject index—Volume 77A

Absorption/desorption hysteresis, 230
Acellular matrix, 180, 390, 795
Acid phosphatase, 67
Additive, 823
Adhesion, 351, 478, 832
Alginate hydrogel, 487
Alkaline phosphatase, 67
Amorphous silicon oxide, 1
Angiogenesis, 119, 285, 390
Annealing, 534
Antimicrobial, 823
Apatite, 406
Apoptosis, 542
Aragonite, 160
Arthroplasty, 269
Articular cartilage, 590
Artificial kidney, 19
Aseptic loosening, 512
Atelocollagen, 707
Atmospheric plasma treatment, 112
Atomic force microscopy, 526
Autoxidation, 580

Bacteria, 406
Bioactive glass, 67, 261, 572
Bioactivity, 340
Bioartificial liver, 90
Bioceramic scaffold, 160
Biocompatibility, 351, 608, 679, 763
Biodegradable, 1, 304, 362, 590, 653, 736
Biodegradable microspheres, 103
Biodegradable polymer, 331, 659
Biodegradable polymer rods, 632
Biodegradable polyurethanes, 802
Biofilm, 406, 437, 823
Biologically active molecules, 802
Biomaterials, 672, 747
Biomaterials availability, 639
Biomechanics, 35
Biomimetic material, 763
Biopolymers, 832
Bioprosthesis, 242
Bioresorbable implant materials, 213
Biostability, 380, 580
Biphasic calcium phosphate ceramic, 747
Biphasic ceramic, 627
Bladder, 180, 390
Blood vessel tissue engineering, 277
BMP-2, 599, 700
BMP-5, 75
BMP-6, 75
Bonding, 128
Bone, 563
Bone cement, 269
Bone engineering, 445
Bone formation, 707
Bone-implant integration, 478
Bone marrow cells, 850
Bone marrow stromal cells, 688
Bone mineral density, 700
Bone regeneration, 119, 627
Bone substitutes, 802
Bone tissue engineering, 103, 261, 487, 688

Calcification, 406
Calcium phosphate cement, 313, 487
Cancellous bone, 426
Cancer, 470
CaO-SiO_2-B_2O_3 glass-ceramics, 362
Carbonated apatite ceramic, 747
Carbon dioxide, 653
Carbon nanotubes, 269
Cardiac bioprostheses, 839
Cartilage, 331, 518
Cell adhesion, 112, 294
Cell adhesion and spreading, 672
Cell culture, 242, 437, 470
Cell encapsulation, 487
Cell-material interactions, 572
Cell morphology, 497
Cell proliferation, 242, 497, 773
Cell survival, 542
Ceramic, 815
Chemokine, 192
Chick embryo chorioallantoic membrane, 795
Chitosan, 11, 277
Chondrogenesis, 84, 497
Chondrogenic differentiation, 773
Chondrogenic markers, 497
Chondroitin sulfate, 551
Citric acid, 331
Clustering, 230
Coating, 445, 815
Co-axial electrospinning, 169
Collagen, 507
Collagen type I, 551
Composite, 416
Composite biomaterials, 59
Composite scaffold, 103
Computer simulations, 618
Copolymer, 261
Corrosion, 97, 220
Cortisol, 90
Critical-sized defect, 700
Cross-link chain length, 35
Cuttlefish bone, 160
Cyclic potentiodynamic polarization, 185
Cytocompatibility, 19, 202
Cytotoxicity, 313, 487, 736

Decorin, 551
Degradable phosphate glasses, 213
Degradation, 128, 169, 261, 563
Dental and orthopedic implants, 599
Dental composite, 1
Dental prostheses, 269
Dentin, 128, 148
Dentine, 406
DFDA, 470
Digital micro-mirror device, 396
DNA-coating, 202
Dopaminergic neuron, 136
Double-layered nanofibers, 169
Drug delivery, 103
Drug encapsulation, 169
Drug release, 169
Durability, 839
Dynamic contrast-enhanced MRI, 390
Dynamic Young's modulus, 572

Elastic modulus, 526
Elastin, 458
Elastomer, 331
Electrochemical anodization, 534
Electrostatic self-assembly, 202
Embryonic stem cell, 136
Endothelial cells, 542
Energy consumption, 839
Environmental stress cracking, 580
Esophagus, 795
Extracted socket, 324

Fatigue, 148, 269, 839
Fibrin matrices, 285
Fibroblasts, 304

Fibronectin, 242
Fluconazole, 632
$FnIII_{7-10}$, 672
Foams, 445
Fracture, 148
Free-floating culture, 136
Free radicals, 43
FTIR, 50
Functionalized chitosan, 726

Gene delivery, 736, 811
Gene expression, 832
Gene therapy, 50
Glassy polymers, 618
Growth factors, 285

Halamine, 823
Hardness, 35
Hard tissue replacement, 213
Hemocompatibility, 19
Hemodialysis, 294
Histocompatibility, 202
Honeycomb scaffold, 707
Human articular cartilage, 84
HUVECs, 542
Hyaluronic acid, 180, 518
Hydration, 148
Hydrogel, 518, 718
Hydrophilicity, 304, 802
Hydrophobicity, 304
Hydrothermal transformation, 160
Hydroxyapatite, 59, 160, 362, 416, 563
Hydroxyapatite coating, 763
Hydroxyapatite formation, 534
Hydroxyapatite scaffolds, 688
2-Hydroxyethyl methacrylate, 726
Hydroxylapatite, 370, 815
Hypochlorite, 128

Ilium defects, 802
Immersion process, 313
Immobilization, 507
Immunohistochemical staining, 707
Implant, 815
Inflammation, 119
Inhibition effects, 28
Injectable material, 103
Inorganic tin catalyst, 84
Interface, 1
Intrabone marrow delivery systems, 632
Intracellular signaling molecule, 507
In vitro biocompatibility, 213
In-vivo test, 370

Joint replacement, 119

Kinetics, 416
Knitting, 277
KUSA/A1 cells, 707

Laminin, 718
Laser spallation, 478
Laser spot-welded joint, 97
Layer-by-layer, 396
Ligament, 639
Localized corrosion, 185
Long-term culture, 136
Low temperature, 416
Lymphatic vessels, 119

Macrophages, 43
Macroporous, 487
Magentic force, 773
Magnetic beads, 773
MC3T3-E1 cell, 112
Mechanical performance, 169
Mechanical properties, 277, 426, 618, 688
Mechanical tests, 526
Mechanism, 747
Meniscus, 659
Mesenchymal cells, 832
Mesenchymal stem cell, 773, 785
Mesh reinforcement, 487
Metal-ion release, 220
Methacrylic acid copolymer, 811
Microencapsulation, 136
Microfabrication, 396
Micromass culture, 84
Microparticles, 351, 590
Micropatterning, 43
Microsphere, 785
Minitablets, 726
MIO, 380
Mitochondrial activity, 437
Mold, 11
Molecular dynamics, 618

Nanofibrous scaffolds or foams, 526
Nanoindentation, 426
Nanoparticles, 28, 351
Nanotubes, 534
Nerve conduits, 11
Neural tissue engineering, 242, 718
Neutrophil, 43, 294
NFκB, 542
N-isopropylacrylamide, 726
NiTi, 97
Nitinol, 185
Non-viral vector, 50

Ophthalmic drug delivery, 726
Organic/inorganic hybrid, 340
Orthopedic implant, 763
Osseointegration, 478, 599
Osteoblast, 67, 75, 192, 220, 512, 551, 572, 608
Osteoblastic differentiation, 850
Osteoclast, 67, 75
Osteoconduction, 362, 370
Osteogenic markers, 497
Osteoinduction, 747
Osteolysis, 192
Osteomyelitis, 632
Osteoprogenitor cells, 850

Peritoneum, 351
Phase inversion, 253
Phase separation, 11
Phospholipid polymer, 19
Photopolymerization, 470, 518
Physiological saline solution (0.9% NaCl), 313
Plasma spraying, 608
Plasmid, 50
Platelet, 285, 294
Polycapralactone, 59
Polycarbonate, 653
Poly(D,L-lactic acid), 445
Polyelectrolyte, 202
Polyethyleneimine, 50
Poly (glycolic acid), 84
Poly(2-hydroxyethyl methacrylate), 35
Poly(L-lactide) (PLLA), 112
Polymer, 639, 679
Polymer nanofiber, 526
Polymethylmethacrylate, 512, 850
Polyphosphazene, 416, 679
Poly(propylene fumarate), 103
Polysiloxane polyether polyurethane, 580
Polysulfone, 19
Polyurethane, 253, 304, 380, 736
Porcine fetal liver cells, 90
Porosity, 180, 253, 261
Porous scaffolds, 213, 802
Potentiodynamic test, 97
Prokaryocyte expression, 324
Protein immobilization, 718
Protein orientation, 672
Proteoglycan, 478
Pulsed laser deposition, 370
Pyrophosphate, 815

RANKL, 75
Rat, 627
Reactive oxygen species, 294
Real-time PCR, 28
Recombinant human osteogenic protein-1 (rhOP-1), 324
Repair, 324
Resin, 128
Restoration failure, 148
rhBMP-2, 507
Rutile, 220

Sample preparation, 426
45S5 Bioglass®, 445
Scaffold, 445, 458, 563, 639, 659, 785
Self-assembled monolayer, 672, 763
Silane, 572
Silicon, 28

Silicone modified polyurethane, 380
Smad family, 507
Smooth muscle cells, 795
Sodium, 128
Soft contact lens, 230
Sol–gel, 340
Solid freeform fabrication, 563
Solution composition, 185
Spraying, 253
Staphylococci, 304
Starch, 653
Stereolithography, 396
Sterilization, 632
Succinate dehydrogenase, 470
Surface condition, 185
Surface hydration, 618
Surface modification, 590, 599
Surface morphology, 1
Surface roughness, 426
Sustained release, 811
Swelling, 35
Synthetic binding motif, 599
Synthetic peptide, 700

Tendon, 285
Thermally responsive materials, 718
Thermal oxidation treatments, 220
Thin coating, 370
Three-dimensional culture, 90
Tissue, 50
Tissue engineering, 11, 90, 112, 180, 331, 390, 518, 590, 639, 659, 679, 707, 785, 795
Tissue engineering scaffolds, 396
Titanium, 512, 551, 599
Titanium alloy, 220, 608
Titanium discs, 437
Titanium oxide, 43, 534
Trabecular bone implants, 688
Transfection, 736
Transforming growth factor, 785
Tricalcium phosphate, 362
α-Tricalcium phosphate, 700
Tubular scaffold, 277
Tumor cells, 470

Ultrasonic system, 437

Vascular graft, 253, 458

Water-vapor sorption and diffusion, 230
Wear debris, 119, 192, 512, 850
Wire, 97

JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A

Volume 77A Contents 2006

April 2006
Volume 77A
Issue No. 1

1 Organic Overlayer Model of a Dental Composite Analyzed by Laser Desorption Postionization Mass Spectrometry and Photoemission
M. Zhou, C. Wu, P. D. Edirisinghe, J. L. Drummond, and L. Hanley
Published online 12 December 2005

11 Manufacture of Multimicrotubule Chitosan Nerve Conduits With Novel Molds and Characterization *In Vitro*
Q. Ao, A. Wang, W. Cao, L. Zhang, L. Kong, Q. He, Y. Gong, and X. Zhang
Published online 12 December 2005

19 Asymmetrically Functional Surface Properties on Biocompatible Phospholipid Polymer Membrane For Bioartificial Kidney
H. Ueda, J. Watanabe, T. Konno, M. Takai, A. Saito, and K. Ishihara
Published online 12 December 2005

28 Silicon Inhibition Effects on The Polymerase Chain Reaction: A Real-Time Detection Approach
W. Wang, H.-B. Wang, Z.-X. Li, and Z.-Y. Guo
Published online 12 December 2005

35 Effects of The Length of Crosslink Chain on Poly(2-Hydroxyethyl Methacrylate) (pHEMA) Swelling and Biomechanical Properties
G. Mabilleau, I.C. Stancu, T. Honoré, G. Legeay, C. Cincu, M.F. Baslé, and D. Chappard
Published online 12 December 2005

43 Anti-Inflammatory Properties of Micropatterned Titanium Coatings
H. Sahlin, R. Contreras, D. F. Gaskill, L. M. Bjursten, and J. A. Frangos
Published online 12 December 2005

50 Surface Adsorption of DNA to Tissue Engineering Scaffolds For Efficient Gene Delivery
J.-H. Jang, Z. Bengali, T. L. Houchin, and L. D. Shea
Published online 13 December 2005

59 Experimental Investigation of Interfaces in Hydroxyapatite/Polyacrylic Acid/Polycaprolactone Composites Using Photoacoustic FTIR Spectroscopy
D. Verma, K. Katti, and D. Katti
Published online 14 December 2005

67 Intact Surface of Bioactive Glass S53P4 is Resistant to Osteoclastic Activity
T. Wilson, V. Parikka, J. Holmbom, H. Ylänen, and R. Penttinen
Published online 14 December 2005

75 Bone Morphogenetic Proteins 5 and 6 Stimulate Osteoclast Generation
A. Wutzl, W. Brozek, I. Lernbass, M. Rauner, G. Hofbauer, C. Schopper, F. Watzinger, M. Peterlik, and P. Pietschmann
Published online 14 December 2005

84 Effects of a Biodegradable Polymer Synthesized With Inorganic Tin on The Chondrogenesis of Human Articular Chondrocytes
N. Banu, T. Tsuchiya, and R. Sawada
Published online 14 December 2005

90 Three-Dimensional Culture of Porcine Fetal Liver Cells For a Bioartificial Liver
T. Ehashi, N. Ohshima, and H. Miyoshi
Published online 14 December 2005

97 Corrosion Resistance of a Laser Spot-Welded Joint of NiTi Wire in Simulated Human Body Fluids
X.-J. Yan and D.-Z. Yang
Published online 3 January 2006

103 Controlled Drug Release From a Novel Injectable Biodegradable Microsphere/Scaffold Composite Based on Poly(Propylene Fumarate)
D. H. R. Kempen, L. Lu, C. Kim, X. Zhu, W. J. A. Dhert, B. L. Currier, and M. J. Yaszemski
Published online 3 January 2006

112 Improvement of Cell Adhesion on Poly(L-Lactide) by Atmospheric Plasma Treatment
M. Nakagawa, F. Teraoka, S. Fujimoto, Y. Hamada, H. Kibayashi, and J. Takahashi
Published online 3 January 2006

119 Lymphangiogenesis in The Bone–Implant Interface of Orthopedic Implants: Importance and Consequence
G. Jell, D. Kerjaschki, P. Revell, and N. Al-Saffar
Published online 3 January 2006

128 Differential Effect of *In Vitro* Degradation on Resin–Dentin Bonds Produced by Self-Etch *Versus* Total-Etch Adhesives
M. Toledano, R. Osorio, A. Albaladejo, F. S. Aguilera, and E. Osorio
Published online 3 January 2006

136 Induction Dopamine Releasing Cells From Mouse Embryonic Stem Cells and Their Long-Term Culture
K. Moriyasu, H. Yamazoe, and H. Iwata
Published online 3 January 2006

148 Hydration and Dynamic Fatigue of Dentin
D. Arola and W. Zheng
Published online 3 January 2006

160 Hydrothermal Growth of Hydroxyapatite Scaffolds From Aragonitic Cuttlefish Bones
J.H.G. Rocha, A.F. Lemos, S. Agathopoulos, S. Kannan, P. Valério, and J.M.F. Ferreira
Published online 3 January 2006

169 Encapsulating Drugs in Biodegradable Ultrafine Fibers Through Co-Axial Electrospinning
Z.-M. Huang, C.-L. He, A. Yang, Y. Zhang, X.-J. Han, J. Yin, and Q. Wu
Published online 3 January 2006

180 Porcine Bladder Acellular Matrix Porosity: Impact of Hyaluronic Acid and Lyophilization
L. M. Cartwright, Z. Shou, H. Yeger, and W. A. Farhat
Published online 3 January 2006

185 Susceptibility of Nitinol to Localized Corrosion
B. G. Pound
Published online 3 January 2006

192 Chemokine Gene Activation in Human Bone Marrow-Derived Osteoblasts Following Exposure to Particulate Wear Debris
E. A. Fritz, T. T. Glant, C. Vermes, J. J. Jacobs, and K. A. Roebuck
Published online 3 January 2006

202 Cyto- and Histocompatibility of Multilayered DNA-Coatings on Titanium
J.J.J.P. van den Beucken, X.F. Walboomers, M.R.J. Vos, N.A.J.M. Sommerdijk, R.J.M. Nolte, and J.A. Jansen
Published online 3 January 2006

May 2006
Volume 77A
Issue No. 2

213 Effect of Degradation Rates of Resorbable Phosphate Invert Glasses on *In Vitro* Osteoblast Proliferation
D. S. Brauer, C. Rüssel, W. Li, and S. Habelitz
Published online 3 January 2006

220 Concentration-Dependent Effects of Titanium and Aluminium Ions Released From Thermally Oxidized Ti6Al4V Alloy on Human Osteoblasts
L. Saldaña, V. Barranco, M.C. García-Alonso, G. Vallés, M.L. Escudero, L. Munuera, and N. Vilaboa
Published online 3 January 2006

230 Sorption Kinetics and Equilibrium Uptake For Water Vapor in Soft-Contact-Lens Hydrogels
C. Weinmüller, C. Langel, F. Fornasiero, C.J. Radke, and J.M. Prausnitz
Published online 3 January 2006

242 Alginate Hydrogel and Matrigel as Potential Cell Carriers For Neurotransplantation
L. N. Novikova, A. Mosahebi, M. Wiberg, G. Terenghi, J.-O. Kellerth, and L. N. Novikov
Published online 3 January 2006

253 Fabrication of Microporous Polyurethane by Spray Phase Inversion Method as Small Diameter Vascular Grafts Material
M.T. Khorasani and S. Shorgashti
Published online 3 January 2006

261 Crosslinked Poly(ε-Caprolactone/D,L-Lactide)/Bioactive Glass Composite Scaffolds For Bone Tissue Engineering
V.V. Meretoja, A.O. Helminen, J.J. Korventausta, V. Haapa-aho, J.V. Seppälä, and T.O. Närhi
Published online 3 January 2006

269 Augmentation of Acrylic Bone Cement With Multiwall Carbon Nanotubes
B. Marrs, R. Andrews, T. Rantell, and D. Pienkowski
Published online 3 January 2006

277 A Sandwich Tubular Scaffold Derived From Chitosan For Blood Vessel Tissue Engineering
L. Zhang, Q. Ao, A. Wang, G. Lu, L. Kong, Y. Gong, N. Zhao, and X. Zhang
Published online 6 January 2006

285 Autologous Fibrin Matrices: A Potential Source of Biological Mediators That Modulate Tendon Cell Activities
E. Anitua, M. Sanchez, A. T Nurden, M. Zalduendo, M. de la Fuente, G. Orive, J. Azofra, and I. Andia
Published online 6 January 2006

294 Platelet Activation Through Interaction With Hemodialysis Membranes Induces Neutrophils to Produce Reactive Oxygen Species
S. Itoh, C. Susuki, and T. Tsuji
Published online 6 January 2006

304 Biodegradable Polyurethane Cytocompatibility to Fibroblasts and Staphylococci
L.G. Harris, K. Gorna, S. Gogolewski, and R.G. Richards
Published online 6 January 2006

313 Physicochemical Properties of TTCP/DCPA System Cement Formed in Physiological Saline Solution and Its Cytotoxicity
G. Dagang, X. Kewei, S. Haoliang, and H. Yong
Published online 9 January 2006

324 Study of Recombinant Human Osteogenic Protein-1 Expressed in Prokaryocyte on The Repair of Extracted Socket in Rabbits
Y. Liu, J.-X. Han, S.-Q. Xiao, S.-L. Wang, and M. Wang
Published online 10 January 2006

331 A New Biodegradable Polyester Elastomer For Cartilage Tissue Engineering
Y. Kang, J. Yang, S. Khan, L. Anissian, and G. A. Ameer
Published online 10 January 2006

340 Release Kinetics of Ampicillin, Characterization and Bioactivity of TiO_2/PCL Hybrid Materials Synthesized by Sol–Gel Processing
M. Catauro, M.G. Raucci, D. DE Marco, and L. Ambrosio
Published online 10 January 2006

351 Biodegradable Polymeric Microspheres and Nanospheres For Drug Delivery in The Peritoneum
D. S. Kohane, J. Y. Tse, Y. Yeo, R. Padera, M. Shubina, and R. Langer
Published online 19 January 2006

362 *In Vivo* Study of Novel Biodegradable and Osteoconductive CaO-SiO_2-B_2O_3 Glass-Ceramics
J. H. Lee, C.-K. Lee, B.-S. Chang, H.-S. Ryu, J.-H. Seo, K. S. Hong, and H. Kim
Published online 19 January 2006

370 Biological Stability and Osteoconductivity in Rabbit Tibia of Pulsed Laser Deposited Hydroxylapatite Coatings
C. Peraire, J.L. Arias, D. Bernal, J. Pou, B. León, A. Arañó, and W. Roth
Published online 19 January 2006

380 *In Vivo* Biostability of Polysiloxane Polyether Polyurethanes: Resistance to Metal Ion Oxidation
B. Ward, J. Anderson, M. Ebert, R. McVenes, and K. Stokes
Published online 19 January 2006

390 Dynamic Contrast-Enhanced MRI to Quantify VEGF-Enhanced Tissue-Engineered Bladder Graft Neovascularization: Pilot Study
L. Cartwright, W. A. Farhat, C. Sherman, J. Chen, P. Babyn, H. Yeger, and H.-L. M. Cheng
Published online 20 January 2006

396 A Digital Micro-Mirror Device-Based System For The Microfabrication of Complex, Spatially Patterned Tissue Engineering Scaffolds
Y. Lu, G. Mapili, G. Suhali, S. Chen, and K. Roy
Published online 27 January 2006

406 *Enterococcus Faecalis*-Mediated Biomineralized Biofilm Formation on Root Canal Dentine *In Vitro*
A. Kishen, S. George, and R. Kumar
Published online 27 January 2006

416 Formation of Hydroxyapatite–Polyphosphazene Polymer Composites at Physiologic Temperature
Y. E. Greish, J. D. Bender, S. Lakshmi, P. W. Brown, H. R. Allcock, and C. T. Laurencin
Published online 15 February 2006

Technical Note

426 Effects of Surface Roughness and Maximum Load on The Mechanical Properties of Cancellous Bone Measured by Nanoindentation
E. Donnelly, S. P. Baker, A. L. Boskey, and M. C.H. van der Meulen
Published online 3 January 2006

Erratum

436 Long-Term Regeneration of The Rat Sciatic Nerve Through a Biodegradeable Poly(DL-Lactide-ϵ-Caprolactone) Nerve Guide: Tissue Reactions With Focus on Collagen III/IV Reformation
K. Jansen, M. F. Meek, J. F. A. van der Werff, P. B. van Wachem, and M. J. A. van Luyn
Published online 15 February 2006

June 1, 2006
Volume 77A
Issue No. 3

437 Influence of Plaque Biofilm Removal on Reestablishment of The Biocompatibility of Contaminated Titanium Surfaces
F. Schwarz, P. Papanicolau, D. Rothamel, B. Beck, M. Herten, and J. Becker
Published online 27 January 2006

445 Poly(D,L-Lactic Acid) Coated 45S5 Bioglass®-Based Scaffolds: Processing and Characterization
Q.Z. Chen and A.R. Boccaccini
Published online 27 January 2006

458 Development of a Reinforced Porcine Elastin Composite Vascular Scaffold
M. T. Hinds, R. C. Rowe, Z. Ren, J. Teach, P.-C. Wu, S. J. Kirkpatrick, K. D. Breneman, K. W. Gregory, and D. W. Courtman
Published online 1 February 2006

470 Intra- and Extracellular Reactive Oxygen Species Generated by Blue Light
Y. Omata, J.B. Lewis, S. Rotenberg, P.E. Lockwood, R.L.W. Messer, M. Noda, S.D. Hsu, H. Sano, and J.C. Wataha
Published online 15 February 2006

478 Glycosaminoglycan Degradation Reduces Mineralized Tissue–Titanium Interfacial Strength
H. Nakamura, J. Shim, F. Butz, H. Aita, V. Gupta, and T. Ogawa
Published online 15 February 2006

487 Strong Calcium Phosphate Cement-Chitosan-Mesh Construct Containing Cell-Encapsulating Hydrogel Beads For Bone Tissue Engineering
M. D. Weir, H. H.K. Xu, and C. G. Simon, Jr.
Published online 15 February 2006

497 Chondrogenic Differentiation of Murine and Human Mesenchymal Stromal Cells in a Hyaluronic Acid Scaffold: Differences in Gene Expression and Cell Morphology
G. Lisignoli, S. Cristino, A. Piacentini, N. Zini, D. Noël, C. Jorgensen, and A. Facchini
Published online 15 February 2006

507 Immobilized rhBMP-2/Succinylated Type I Atelocollagen Gene Expression of Intracellular Signaling Molecules on ST2 Cells
H. Tsujigiwa, H. Nagatsuka, Y. J. Lee, P. P. Han, M. Gunduz, R. Z. LeGeros, M. Inoue, M. Yamada, and N. Nagai
Published online 15 February 2006

512 The Effects of Titanium and Polymethylmethacrylate Particles on Osteoblast Phenotypic Stability
R. Ramachandran, S.B. Goodman, and R.L. Smith
Published online 15 February 2006

518 Influence of Gel Properties on Neocartilage Formation by Auricular Chondrocytes Photoencapsulated in Hyaluronic Acid Networks
C. Chung, J. Mesa, M. A. Randolph, M. Yaremchuk, and J. A. Burdick
Published online 15 February 2006

526 Characterization of Bulk Properties of Nanofibrous Scaffolds From Nanomechanical Properties of Single Nanofibers
E.P.S. Tan and C.T. Lim
Published online 17 February 2006

534 Hydroxyapatite Growth on Anodic TiO_2 Nanotubes
H. Tsuchiya, J. M. Macak, L. Müller, J. Kunze, F. Müller, P. Greil, S. Virtanen, and P. Schmuki
Published online 17 February 2006

542 Activation of Cell-Survival Transcription Factor NFκB in L1Ig6-Stimulated Endothelial Cells
M. Reidy, P. Zihlmann, J. A. Hubbell, and H. Hall
Published online 21 February 2006

551 Collageneous Matrix Coatings on Titanium Implants Modified With Decorin and Chondroitin Sulfate: Characterization and Influence on Osteoblastic Cells
S. Bierbaum, T. Douglas, T. Hanke, D. Scharnweber, S. Tippelt, T. K. Monsees, R. H.W. Funk, and H. Worch
Published online 23 February 2006

563 Effects of Degradation and Porosity on The Load Bearing Properties of Model Hydroxyapatite Bone Scaffolds
J. G. Dellinger, A. M. Wojtowicz, and R. D. Jamison
Published online 23 February 2006

572 Bioactive Glass/Polymer Composite Materials With Mechanical Properties Matching Those of Cortical Bone
V. A. Koleganova, S. M. Bernier, S. J. Dixon, and A. S. Rizkalla
Published online 27 February 2006

580 *In Vivo* Biostability of Polysiloxane Polyether Polyurethanes: Resistance to Biologic Oxidation and Stress Cracking
R. Ward, J. Anderson, R. McVenes, and K. Stokes
Published online 27 February 2006

590 Synthetic Biodegradable Microparticles For Articular Cartilage Tissue Engineering
H. Thissen, K.-Y. Chang, T.A. Tebb, W.-B. Tsai, V. Glattauer, J.A.M. Ramshaw, and J.A. Werkmeister
Published online 27 February 2006

599 Enhanced Osteogenic Promotion Around Dental Implants With Synthetic Binding Motif Mimicking Bone Morphogenetic Protein (BMP)-2
Y.-J. Seol, Y.-J. Park, S.-C. Lee, K.-H. Kim, J.-Y. Lee, T.-I. Kim, Y.-M. Lee, Y. Ku, I.-C. Rhyu, S.-B. Han, and C.-P. Chung
Published online 27 February 2006

608 Osteoblast Response to Plasma-Spray Porous Ti6Al4V Coating on Substrates of Identical Alloy
L. Saldaña, J.L. González-Carrasco, M. Rodríguez, L. Munuera, and N. Vilaboa
Published online 27 February 2006

618 Computer Simulation of Bulk Mechanical Properties and Surface Hydration of Biomaterials
G. Raffaini, S. Elli, and F. Ganazzoli
Published online 27 February 2006

627 Assessment of the Effect of a Biphasic Ceramic on Bone Response in a Rat Calvarial Defect Model
H. Develioğlu, S. Ünver Saraydin, G. Bolayir, and L. Dupoirieux
Published online 2 March 2006

632 Biodegradable Implantable Fluconazole Delivery Rods Designed For The Treatment of Fungal Osteomyelitis: Influence of Gamma Sterilization
I. Soriano, A.Y. Martín, C. Évora, and E. Sánchez
Published online 2 March 2006

Review

639 Biomaterials and Scaffolds For Ligament Tissue Engineering
Z. Ge, F. Yang, J. C. H. Goh, S. Ramakrishna, and E. H. Lee
Published online 20 March 2006

June 15, 2006
Volume 77A
Issue No. 4

653 Biodegradability and Thermal Stability of Poly(Propylene Carbonate)/Starch Composites
X. L. Lu, F. G. Du, X. C. Ge, M. Xiao, and Y. Z. Meng
Published online 2 March 2006

659 Regeneration of Whole Meniscus Using Meniscal Cells and Polymer Scaffolds in a Rabbit Total Meniscectomy Model
S.-W. Kang, S.-M. Son, J.-S. Lee, E.-S. Lee, K.-Y. Lee, S.-G. Park, J.-H. Park, and B.-S. Kim
Published online 2 March 2006

672 Modulating Cell Adhesion and Spreading by Control of $FnIII_{7-10}$ Orientation on Charged Self-Assembled Monolayers (SAMs) of Alkanethiolates
H. Wang, Y. He, B. D. Ratner, and S. Jiang
Published online 2 March 2006

679 *In Vivo* Biodegradability and Biocompatibility Evaluation of Novel Alanine Ester Based Polyphosphazenes in a Rat Model
S. Sethuraman, L. S. Nair, S. El-Amin, R. Farrar, M.-T. N. Nguyen, A. Singh, H. R. Allcock, Y. E. Greish, P. W. Brown, and C. T. Laurencin
Published online 2 March 2006

688 Effects of *In Vitro* Bone Formation on The Mechanical Properties of a Trabeculated Hydroxyapatite Bone Substitute
G. J. Kazakia, E. A. Nauman, D. M. Ebenstein, B. P. Halloran, and T. M. Keaveny
Published online 2 March 2006

700 Repair of 20-mm Long Rabbit Radial Bone Defects Using BMP-Derived Peptide Combined With an α-Tricalcium Phosphate Scaffold
A. Saito, Y. Suzuki, M. Kitamura, S.-I. Ogata, Y. Yoshihara, S. Masuda, C. Ohtsuki, and M. Tanihara
Published online 20 March 2006

707 Efficacy of Atelocollagen Honeycomb Scaffold in Bone Formation Using KUSA/A1 Cells
A. P. Rodriguez, L. Missana, H. Nagatsuka, M. Gunduz, H. Tsujigiwa, R. Rivera, and N. Nagai
Published online 22 March 2006

718 Thermoreversible Laminin-Functionalized Hydrogel For Neural Tissue Engineering
S. E. Stabenfeldt, A. J. García, and M. C. LaPlaca
Published online 22 March 2006

726 Functionalized Chitosan/NIPAM (HEMA) Hybrid Polymer Networks as Inserts For Ocular Drug Delivery: Synthesis, *In Vitro* Assessment, and *In Vivo* Evaluation
L. Verestiuc, O. Nastasescu, E. Barbu, I. Sarvaiya, K. L. Green, and J. Tsibouklis
Published online 22 March 2006

736 Effect of Molecular Weight on The Transfection Efficiency of Novel Polyurethane as a Biodegradable Gene Vector
M.-D. Shau, S.-J. Tseng, T.-F. Yang, J.-Y. Cherng, and W.-K. Chin
Published online 30 March 2006

747 Osteoinduction by Biomaterials—Physicochemical and Structural Influences
P. Habibovic, T. M. Sees, M. A. van den Doel, C. A. van Blitterswijk, and K. de Groot
Published online 23 March 2006

763 The Optimal SAM Surface Functional Group For Producing a Biomimetic HA Coating on Ti
D. P. Liu, P. Majewski, B. K. O'Neill, Y. Ngothai, and C. B. Colby
Published online 24 March 2006

773 Effects of CD44 Antibody– or RGDS Peptide–Immobilized Magnetic Beads on Cell Proliferation and Chondrogenesis of Mesenchymal Stem Cells
S. Yanada, M. Ochi, N. Adachi, H. Nobuto, M. Agung, and S. Kawamata
Published online 24 March 2006

785 Porous Gelatin–Chondroitin–Hyaluronate Tri-Copolymer Scaffold Containing Microspheres Loaded With TGF-β1 Induces Differentiation of Mesenchymal Stem Cells *In Vivo* For Enhancing Cartilage Repair
H. Fan, Y. Hu, L. Qin, X. Li, H. Wu, and R. Lv
Published online 30 March 2006

795 *In Vitro* and *In Vivo* Proposal of an Artificial Esophagus
M. Marzaro, S. Vigolo, B. Oselladore, M. T. Conconi, D. Ribatti, S. Giuliani, B. Nico, G. Perrino, G. G. Nussdorfer, and P. P. Parnigotto
Published online 30 March 2006

802 Regeneration of Bicortical Defects in The Iliac Crest of Estrogen-Deficient Sheep, Using New Biodegradable Polyurethane Bone Graft Substitutes
S. Gogolewski, K. Gorna, and A. S. Turner
Published online 30 March 2006

811 Soluble Sustained Release Gene Delivery System
G. Bachrach, M. Friedman, G. Gilinski, and D. Steinberg
Published online 30 March 2006

815 Subcutaneous Evaluation of RF Magnetron-Sputtered Calcium Pyrophosphate and Hydroxylapatite-Coated Ti Implants
Y. Yonggang, J.G.C. Wolke, L. Yubao, and J.A. Jansen
Published online 30 March 2006

823 Controlling Biofilm Formation With an *N*-Halamine-Based Polymeric Additive
J. Luo, Z. Chen, and Y. Sun
Published online 30 March 2006

832 Molecular and Cellular Characterization of Mesenchymal Progenitors For Skeletal Biomedical Devices
I. Shur, M. Zilberman, S. Einav, and D. Benayahu
Published online 30 March 2006

839 Durability of a Cardiac Valve Leaflet Made of Calf Pericardium: Fatigue and Energy Consumption
J.M. García Páez, A. C. Sanmartín, E. J. Herrero, I. Millán, A. Cordon, A. Rocha, M. Maestro, R. Burgos, G. Téllez, and J.L. Castillo-Olivares
Published online 4 April 2006

850 Polymethylmethacrylate Particles Inhibit Osteoblastic Differentiation of Bone Marrow Osteoprogenitor Cells
R. Chiu, T. Ma, R. L. Smith, and S. B. Goodman
Published online 4 April 2006

858 Author Index to Volume 77A

865 Subject Index to Volume 77A

Volume 77A Contents